

**Periodic Review of the 1995 Water  
Quality Control Plan for the San  
Francisco Bay/Sacramento-San Joaquin  
Delta Estuary**

**Comments of  
The Bay Institute  
on**

**Flexing the Delta Outflow Objective**

**August 31, 2005**

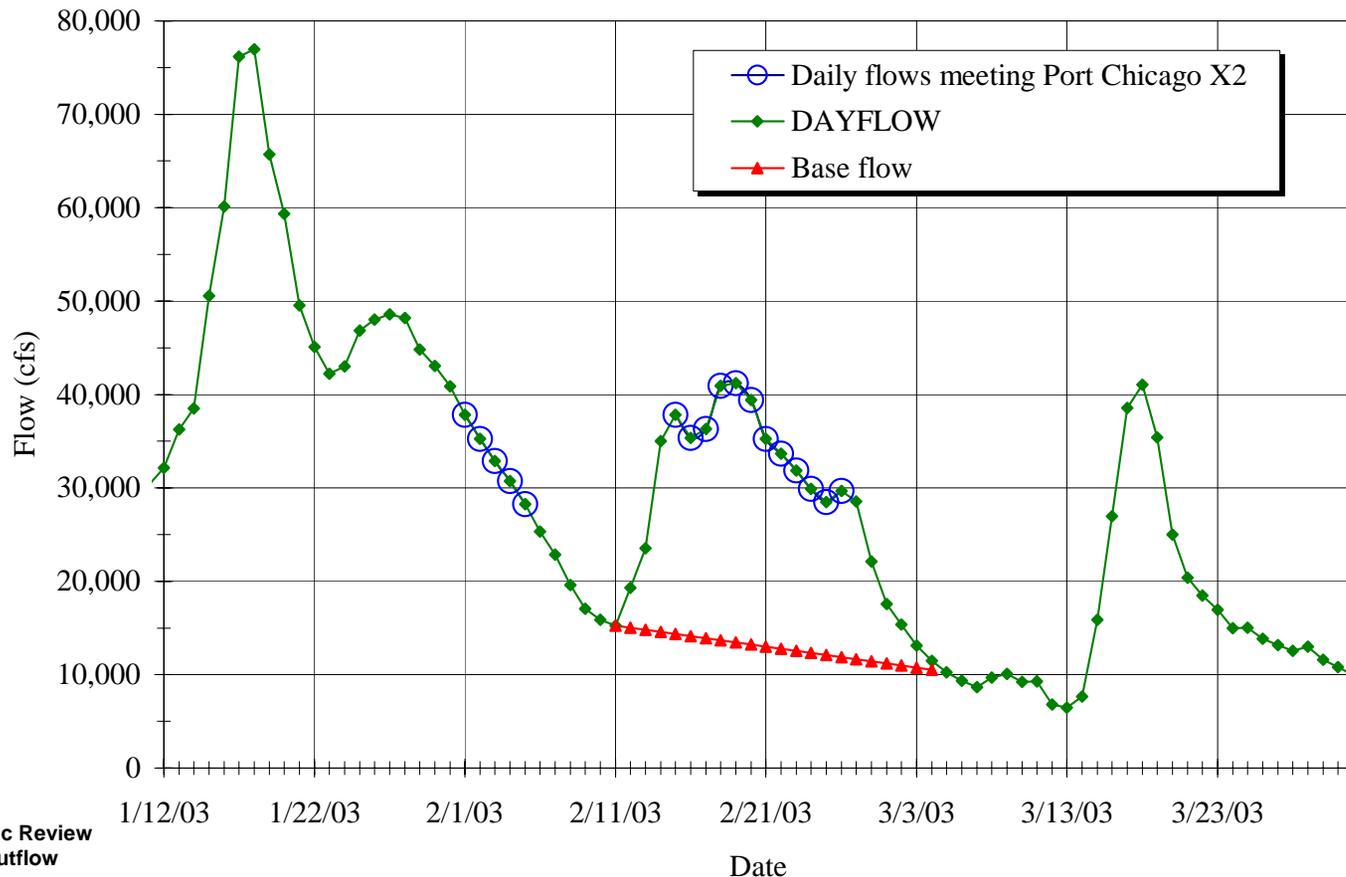
**The SWRCB should not amend the Delta Outflow Objective to increase flexibility in the value of the objective or in alternative methods to meet the objective.**

- 1. Need for flexibility to avoid upstream problems has not been demonstrated**
- 2. No biological basis to justify benefits of flexibility**
- 3. Flexibility would reduce protection for Bay-Delta fish and wildlife and estuarine habitat**
- 4. Flexibility proposal converts estuarine habitat protection objective into tool to achieve other purposes**

# 1. Need For Flexibility To Avoid Upstream Problems Has Not Been Demonstrated

Water Years 2003 and 2004 – cited as examples of conflict between compliance with Delta Outflow Objective and upstream flow management for salmonid fishes (American River)

Delta Outflow - February 2003



# **1. Need For Flexibility To Avoid Upstream Problems Has Not Been Demonstrated**

- Upstream problems were the result of operational decisions, not a problem inherent with meeting Delta Outflow Objective**
- Alternative water management strategies (e.g., earlier increases in releases to maintain compliance via EC) could have avoided the extreme flow fluctuations and upstream impacts**
- Retrospective analysis and computer model gaming exercises showed Delta Outflow Objective would have been met without higher releases on the American River than resulted in harmful flow fluctuations (TBI June 3, 2005 letter, Appendix C)**

## **2. No Biological Basis to Justify Benefits of Flexibility**

**Delta Outflow Objective is an undisputed, science-based approach to regulate minimum outflows in a manner that reflects and partially mimics seasonal and inter-annual variation in spring flows in the natural estuarine system.**

### **Key Features:**

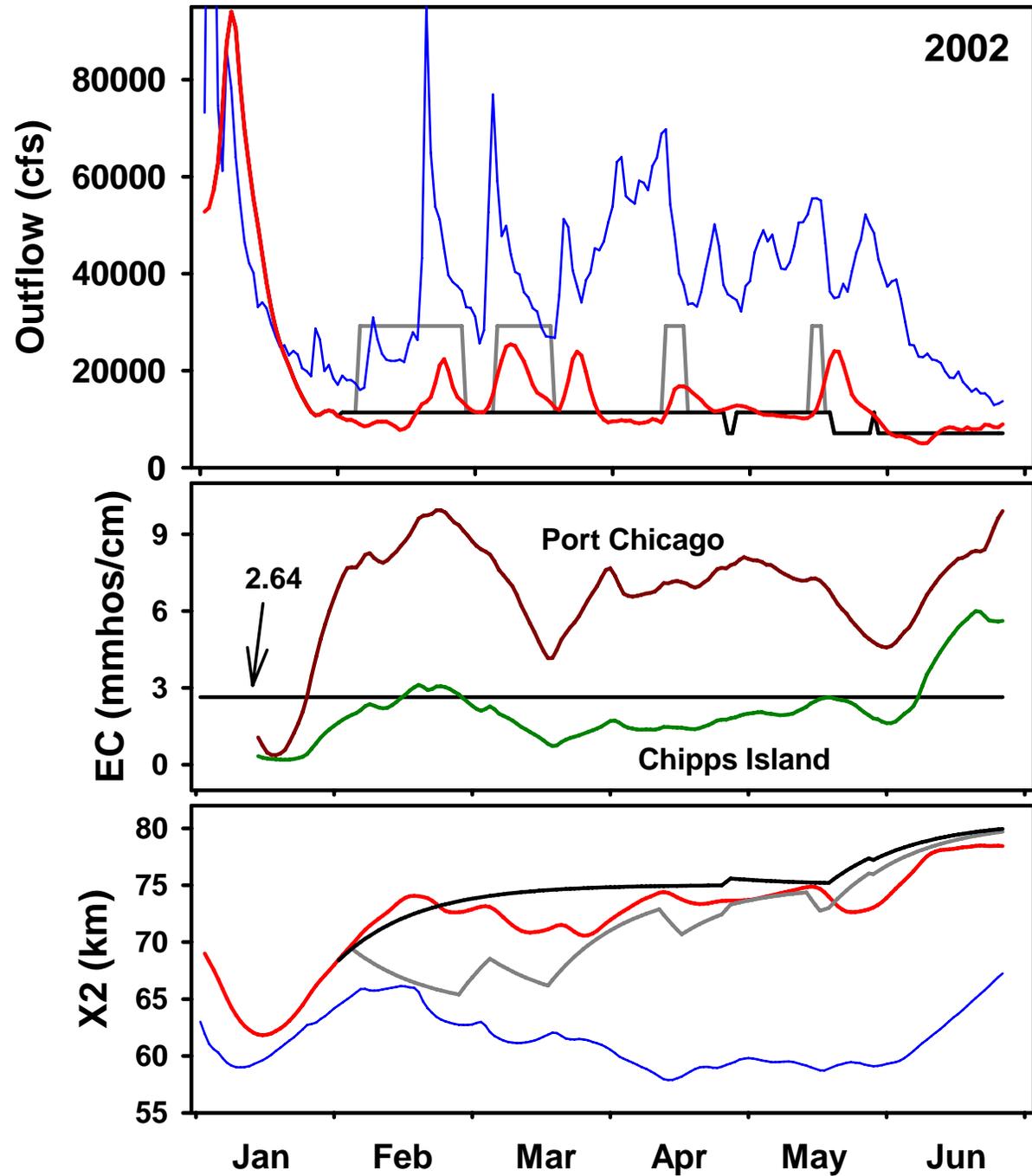
- Retains the natural variability in California's hydrograph**
- System-wide approach – monthly objectives set by inflows to major rivers in the previous month propagate key environmental conditions (flow, temperature, turbidity) downstream and to the estuary**
- Regulates a specific environmental condition (outflow) known to significantly affect multiple Delta fish and invertebrate species, and overall estuarine habitat conditions and ecological processes**

### **3. Flexibility Would Reduce Protection For Bay-delta Fish And Wildlife And Estuarine Habitat**

**Proposals to “flex” the Delta Outflow Objectives would reduce protection of the Bay-Delta fishes and invertebrates and estuarine habitat.**

- State Water Contractor’s analysis indicates that a 0.5 km upstream shift in springtime X2 would result in a 2% decrease in longfin smelt population**
- Using data from W. Kimmerer, we estimate that shifting X2 from 65 to 66 km would result in a 12% population decrease for longfin smelt**
- Given the current steep population decline of multiple Delta outflow-dependent species, any changes in Delta Outflow objective that reduce protection are potentially catastrophic**

**In 2002, use of the Port Chicago EC trigger eliminated high flows in all four months specified by the PMI**

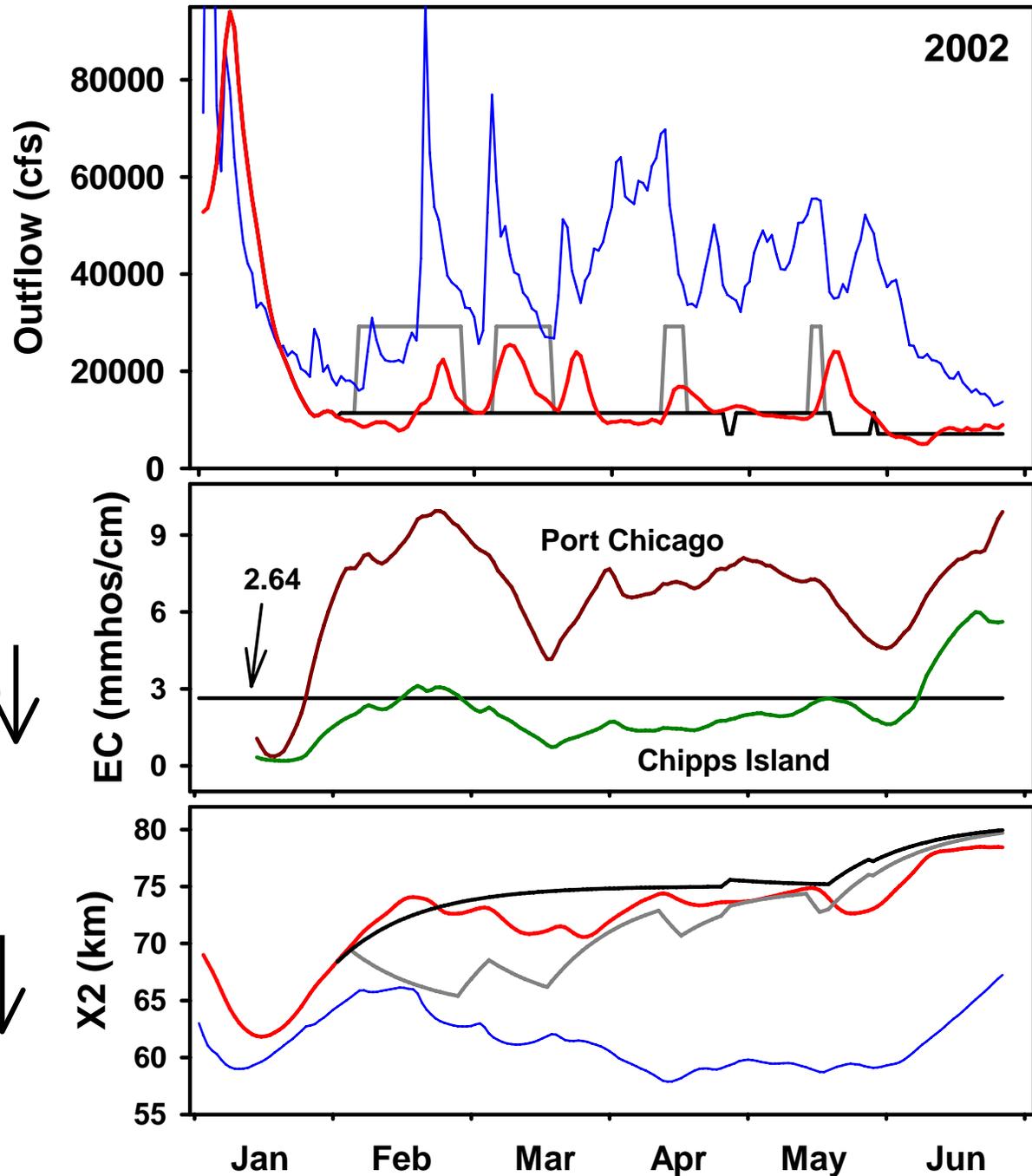


Using Kimmerer data, the average 1.7 km upstream shift in Feb-June X2 corresponded to:

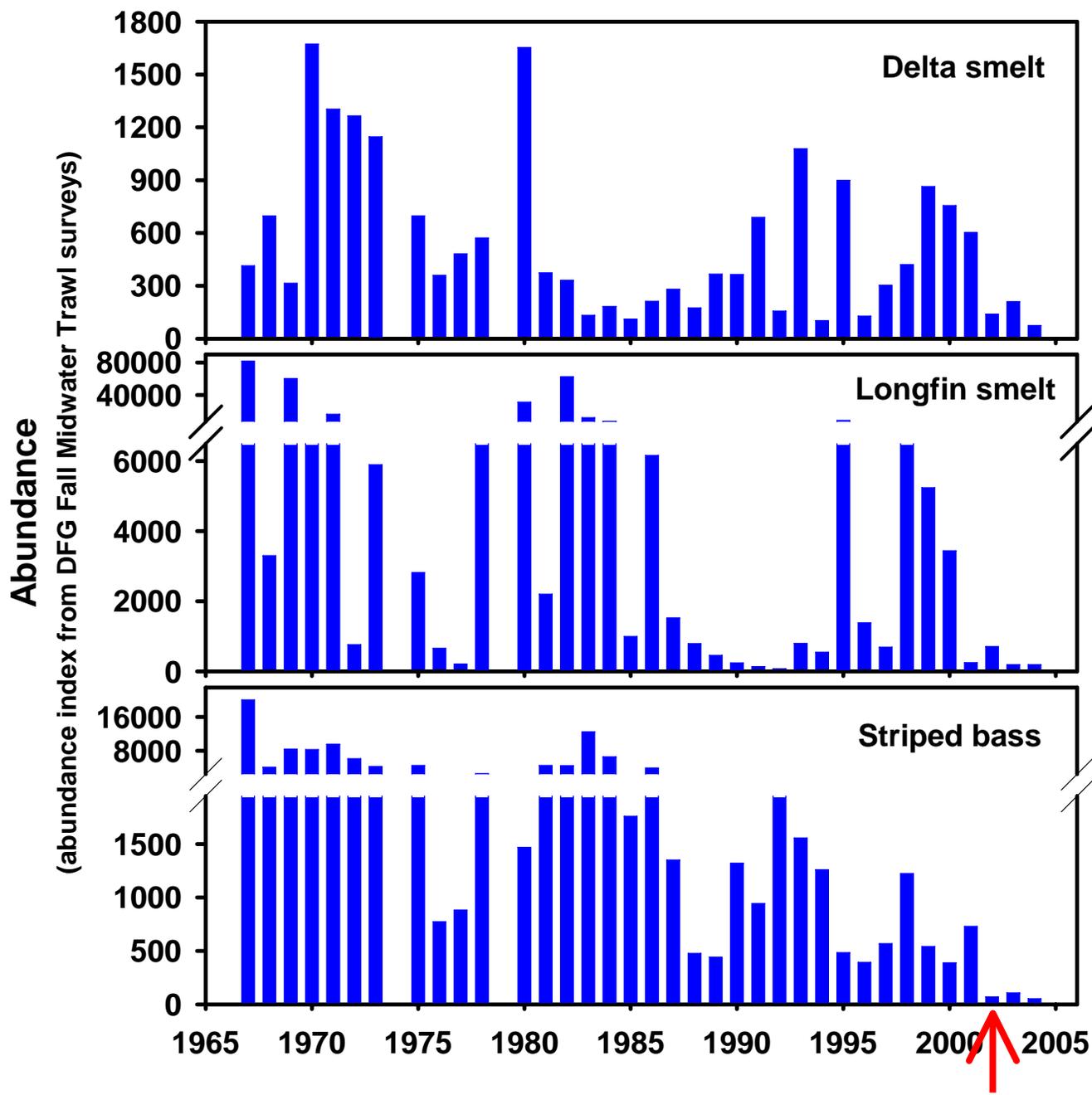
Longfin smelt: 20% ↓

Bay shrimp: 10% ↓

Pacific herring: 8% ↓



**In 2002,  
populations of  
many estuarine  
pelagic fish  
species and  
several of their  
key food  
organisms  
declined sharply  
to critically low  
levels**



## **4. Flexibility Proposal Converts Estuarine Habitat Protection Objective Into Tool To Achieve Other Purposes**

- Delta outflow objective based on proven relationships, benefits; necessary to provide minimum estuarine habitat beneficial use protection under the Clean Water Act**
- Flexibility not needed to prevent upstream problems, so what is the purpose of flexing?**
- New purposes are undefined benefits to control take, make upstream releases, etc. Why are these benefits achievable only in lieu of Delta Outflow?**

## **4. Flexibility Proposal Converts Estuarine Habitat Protection Objective Into Tool To Achieve Other Purposes**

- If proposed alternative uses of water are predictable in timing and benefit, then parties (including SWRCB) should propose or adopt new requirements independent of Delta Outflow objective**
- If proposed alternative uses of water are unpredictable in timing and benefit, then parties should dedicate water from the EWA (current or expanded) or secure other appropriate sources**
- By agreeing to flex, SWRCB would in effect convert the Delta Outflow Objective into an EWA and allow operators to “balance” between beneficial uses using the outflow dedication without providing the minimum outflow protection for estuarine habitat**